

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference  ARDK/ P28276PC	<b>FOR FURTHER ACTION</b> <small>see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.</small>	
International application No.  PCT/GB 03/ 03669	International filing date (day/month/year)  21/08/2003	(Earliest) Priority Date (day/month/year)  23/08/2002
Applicant  UNIVERSITY OF MONTREAL		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 06 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☒ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

GROWTH HORMONE-RELEASING PEPTIDES IN THE TREATMENT OF PREVENTION OF  
ATHEROSCLEROSIS AND HYPERCHOLESTEROLEMIA

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1A

☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/03669

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K38/08 A61K38/25 A61P9/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K A61P C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 23097 A (SAHLTECH AB ; ANGELIN BO (SE); RUDLING MATS (SE)) 27 April 2000 (2000-04-27) claims page 4, paragraph 3 ---	1-5, 11-16, 22, 26
X	WO 98 22124 A (GENNARO COLONNA VITO DE ; BOGHEN MUNY (IT); BERTI FERRUCCIO (IT); M) 28 May 1998 (1998-05-28) claims examples page 26, paragraph 1 ---	1-4, 12-15, 22, 24-26
X	WO 00 67770 A (SAHLTECH AB ; BOLLANO ENTELA (SE); ISGAARD JOERGEN (SE); OMEROVIC E) 16 November 2000 (2000-11-16) claims ---	1, 3, 12, 14, 15, 26
	--- -/-	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

14 November 2003

Date of mailing of the international search report

28/11/2003

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/03669

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00 09537 A (UNIV TULANE ;BOWERS CYRIL Y (US); LIANG YONGWU (US); MOMANY FRANK) 24 February 2000 (2000-02-24) claims page 24, paragraph 3 ---	1,3,5,6, 12,14, 16,17,26
X	BROGLIO FABIO ET AL: "Effects of acute hexarelin administration on cardiac performance in patients with coronary artery disease during by-pass surgery" EUROPEAN JOURNAL OF PHARMACOLOGY, vol. 448, no. 2-3, 19 July 2002 (2002-07-19), pages 193-200, XP002261551 ISSN: 0014-2999 abstract page 198, left-hand column, last paragraph ---	1,3,4, 12,14, 15,26
X	WALKER RICHARD F ET AL: "Effects of stimulated growth hormone secretion on age-related changes in plasma cholesterol and hepatic low density lipoprotein messenger RNA concentrations" MECHANISMS OF AGEING AND DEVELOPMENT, vol. 75, no. 3, 1994, pages 215-226, XP009021106 ISSN: 0047-6374 abstract; figure 2 ---	1,2,4,5, 11-13, 16,22, 23,26
X	MARLEAU S ET AL: "Effect of growth hormone releasing peptides (GHRPs) on monocyte/macrophage scavenger receptors (SR) B (CD36) expression and monocyte trafficking" INFLAMMATION RESEARCH, vol. 50, no. Supplement 3, September 2001 (2001-09), page S154 XP009021107 5th World Congress on Inflammation;Edinburgh, Scotland; September 22-26, 2001 ISSN: 1023-3830 abstract ---	7,10,11, 18,21
A	BODART V ET AL: "CD36 mediates the cardiovascular action of growth hormone-releasing peptides in the heart" CIRCULATION RESEARCH, vol. 90, no. 8, 3 May 2002 (2002-05-03), pages 844-849, XP002261552 ISSN: 0009-7330 abstract -----	7,10,11, 18

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 8,19,23,24 (all partially)

Present claims 8 and 19 relate to a genes defined by reference to a desirable characteristic or property, namely to genes involved in cellular cholesterol efflux.

The claims cover all genes having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such genes. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the genes LXRA $\alpha$  and ABCA1 as defined in claims 9 and 20.

Present claims 23 and 24 relate to a compounds defined by reference to a desirable characteristic or property, namely to CD36 ligand.

The claims cover all compounds having this characteristic or property, whereas the application does not provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for any such compound. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the GHRPs and derived peptidomimetics.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB 03/03669

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 1-11 and 23-25 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 8,19,23,24 (all partialy)  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 03/03669

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0023097	A	27-04-2000	AU 764779 B2	28-08-2003
			AU 1428800 A	08-05-2000
			CA 2342794 A1	27-04-2000
			EP 1124571 A1	22-08-2001
			JP 2002527486 T	27-08-2002
			WO 0023097 A1	27-04-2000
			US 6559289 B1	06-05-2003
WO 9822124	A	28-05-1998	AU 5142498 A	10-06-1998
			WO 9822124 A1	28-05-1998
WO 0067770	A	16-11-2000	AU 4790800 A	21-11-2000
			EP 1173190 A1	23-01-2002
			WO 0067770 A1	16-11-2000
WO 0009537	A	24-02-2000	AU 5671099 A	06-03-2000
			EP 1159292 A2	05-12-2001
			JP 2002525265 T	13-08-2002
			WO 0009537 A2	24-02-2000
			US 2002151501 A1	17-10-2002
			US 6468974 B1	22-10-2002